

AMENDMENTS TO THE CLAIMS

1. (Currently amended) A method for rendering a window tree having a plurality of nodes, comprising:

defining a recursive procedure comprising[[,]] :

- (a) identifying one of said nodes to be rendered;
- (b) determining whether a visual object defined at said identified node is visible;
- (c) in response to determining that said object is visible, copying rendering information for a sub-tree of said window tree defined by said identified node onto a stack;
- (d) calculating the bounds of an invalidation rectangle in coordinates relative to said object by:
 - (i) determining whether a transformation is applied to said object;
 - (ii) in response to determining that no transformation should be applied to said object, using data from said stack associated with a parent node of said object as said invalidation rectangle;
 - (iii) in response to determining that a transformation should be applied to said object, creating a cumulative invalidation matrix utilizing an anti-transformation of said transformation;
 - (iv) applying said cumulative invalidation matrix to said invalidation rectangle of said parent node to obtain a new bounding polygon;
 - (v) determining a bounding rectangle of said new bounding polygon;
 - (vi) intersecting said new bounding rectangle with a bounding rectangle for said object; and
 - (vii) storing the results of said intersection on said stack;

and determining whether said object should be rendered;

(e) in response to determining that said object should be rendered, rendering said object and determining whether said object is a trivial object; and

(f) in response to determining that said object is not a trivial object, rendering any children of said node using said recursive procedure.

2-3. (Canceled)

4. (Original) The method of Claim 1, wherein determining whether said object is a trivial object comprises examining a bit associated with said object.

5. (Original) The method of Claim 4, further comprising:

in response to determining that said object is a trivial object, rendering any children of said node using a trivial recursive rendering procedure.

6. (Original) The method of Claim 4, wherein said trivial recursive rendering procedure comprises:

defining a recursive procedure comprising,

determining whether said node intersects an invalidation rectangle;

in response to determining that said node intersects an invalidation rectangle, rendering a visual object at said node; and

calling said trivial recursive rendering procedure for each of said children of said node.

7. (Original) The method of Claim 1, wherein determining whether said object should be rendered comprises determining the intersection of said object and said bounds of said invalidation rectangle in coordinates relative to said object.

8. (Currently amended) A computer-controlled apparatus capable of performing the method of any one of Claims [[1-7]] 1 and 4-7.

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9. (Currently amended) A computer-readable medium comprising instructions which, when executed by a computer, cause the computer to perform the methods of any one of Claims [[1-7]] 1 and 4-7.

10-16. (Canceled)

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